



# City of Needles, California Request for Board Action

CITY COUNCIL       NPUA       BOARD OF PUBLIC UTILITIES  
 Regular     Special

**Meeting Date:**      October 5, 2021

**Title:**                      Comprehensive Alternative Electric Utility Rate Structures Review

**Background:**      In November 2019 the Board of Public Utilities and Council awarded Stantec Consulting Services to complete the 2019-2020 Comprehensive Electric, Water and Wastewater Utility Cost of Service Ratemaking Study. An Ad Hoc Committee was created to work with staff to complete the study. The Committee, staff and Stantec have met on several occasions to review fiscal policies, financial models and rate scenarios for each of the three utilities. The final study was completed and adopted in July 2020.

Since the adoption of the final study of the utility cost of service study, the electric fund has been impacted by significant increases in power purchasing expenses due to an increase in market prices. The original cost of service study conducted a 10-year forecast but did not predict recent changes to power purchasing and inflation.

The Board requested a review of the current electric rate structure and provide potential alternatives. Stantec provided a proposal to provide up to three alternative rate structures designed to recover costs and maintain financial stability. The potential alternatives that are going to be reviewed are tiered rates and demand charges.

**Fiscal Impact:** The 2019-2020 Comprehensive Electric, Water, and Wastewater Utility Cost of Service study has \$6,000 remaining from the approved authorization which will be applied to this cost estimate.

Total budget project cost will be \$41,000 which will be funded by the electric operating budget.

AM Sylvia Miledi

**Recommended Action:** Authorize Stantec to conduct a comprehensive alternative electric utility rate structure review not to exceed \$41,000.

**Submitted By:** Rainie Torrance, Assistant Utility Manager

**City Management Review:** Approved for Rick Donalds (C. Kealey signed)      **Date:** 9/30/21

Approved: <input type="checkbox"/>	Not Approved: <input type="checkbox"/>	Tabled: <input type="checkbox"/>	Other: <input type="checkbox"/>
Agenda Item: _____			6.



Stantec Consulting Services Inc.  
3301 C Street, Ste 1900  
Sacramento, CA 95816

September 16, 2021

**Attention: Rainie Torrance**

City of Needles  
817 Third Street  
Needles, CA 92363  
(760) 326-2115

Dear Ms. Torrance,

This letter is submitted for your review and approval of a scope and budget for the Electric Utility Rates Review & Analysis, and development of potential alternative electric rate structures for consideration.

This scope will allow Stantec to assist the City's Electric Utility by updating financial plans to reflect the latest budgets, capital plans, and forecasts; reviewing and analyzing existing billing data; conducting a high-level cost-of-service analysis; and developing up to three alternative rate structures for consideration.

## **APPROACH**

### **1. Project Initiation, Kick-Off Call and Data Review**

We will commence the project with an initiation phase to collect data, confirm schedules and objectives, discuss deliverables, and ensure a common understanding of the project.

- a. Kick-off meeting via web conference call to discuss schedule, objectives and outcomes, data request, and data availability as well as expectations regarding reporting and presentations/meetings.
- b. Develop and submit data request.
- c. Review provided data for completeness and sufficiency for purposes of producing the desired rate structure alternatives and meeting the overall project objectives.
- d. Web meeting to review received data together, answer questions, and confirm understanding of information.

### **2. Revenue Requirements Update**

The first step of analysis will involve calculating revenue requirements using the existing models developed during the study completed in 2020.

- a. Update FAMS model with latest budgets and actuals for operations and maintenance expenses, changes to the capital improvement plan (CIP), and forecast assumptions.
  - i. Note: Much of this work has been completed as part of the annual subscription agreement for the FAMS model. This task provides budget for a more comprehensive update to "roll" the model forward a year to forecast off the latest base year.

- b. Review forecast assumptions, inputs, and updates to verify the forecast of revenue requirements for use in analyses included in the subsequent tasks.

### **3. Cost-of-Service and Billing Data Analysis**

We will use the revenue requirements from the previous task, and allocate those costs to system functions and demand parameters to equitably recover revenues from customers based on their usage characteristics, including average demands, peak demands, and seasonality of demands, as appropriate.

- a. Using revenue requirements developed under Task 2, functionalize revenue requirements and allocate those revenue requirements to their respective usage parameters (e.g. customer costs, average usage, peak usage, etc.).
- b. Analyze existing billing data to determine units of service and billing parameters for potential rate structure changes.
  - i. This analysis of billing data (demand and energy) and the level of detail contained therein will ultimately determine the potential rate structure alternatives available to the City for consideration. For example, at least hourly data (at time of system peak/coincident and non-coincident by customer class) would be required for development of "time of day" or daily peaking rate structures.
- c. Combine functionalized and allocated revenue requirements with the summary outputs from billing data analysis to allocate costs and determine unit costs for each customer class and billing parameter.

### **4. Rate Structure Analysis**

Using allocated costs, we will work with City staff to develop up to three alternative rate structures for consideration. These will be developed to meet the City's objectives, align with billing and meter system capabilities, and recover revenues from customers in reasonable accordance with their use of the system.

- a. Incorporate cost of service analysis outputs into a rate design model containing test year billing data to develop alternative rate structures to recover revenues from each customer class in proportion to their respective costs imposed on the system, and from each particular rate component in proportion to the revenue requirements contained therein.
- b. The rate design analysis will produce up to three alternative rate structures to balance the City's ultimate objectives for fixed/variable revenue recovery, ease of administration and implementation, and incentives for conservation, among others.
  - i. Options such as tiered rates, demand charges, and alternative power supply cost recovery mechanisms will be considered, and the options analyzed will be dependent on data availability, the City's ultimate objectives, and the functionality or limitations of existing billing systems and meters.

- c. Combining cost of service outputs with the City's electric billing data will enable the model to ensure test year customer and usage characteristics would yield full recovery of revenue requirements under each proposed alternative.
  - i. We will also use this model and billing data to develop detailed bill impact analyses. These bill impact analyses serve as important tools to evaluate and compare alternative rate structures, and to communicate to stakeholders the anticipated changes customers will see in their bills.

**5. Documentation & Presentations**

We will meet with the City's ad hoc committee at key points during the process to include them in the analysis and consideration of alternatives, and will present findings to the City Council and NPUA Board. Additionally, we will document our analysis and findings in a final report.

- a. Summarize revenue requirements, cost-of-service, and rate design analyses, including rate structure alternatives (as appropriate).
- b. Provide one draft report for City review and comments, and one final report incorporating City feedback, for transmittal.
- c. Present rate structure alternatives at three ad hoc committee meetings and solicit feedback for further analysis and documentation.
- d. Present rate structure alternatives at one board meeting and one City Council meeting.
- e. Present final rate structure recommendation at one board meetings and one City Council meeting.

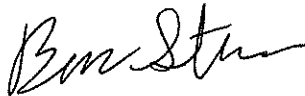
## BUDGET

The budget for this proposal comes to a total of \$47,000. We would propose to provide our services on a fixed fee basis, with monthly progress billings based upon the percentage completion of each task.

Task	Description	Hours	Cost
Task 1	Project Initiation, Kick-Off Call & Data Review	20	\$4,000
Task 2	Revenue Requirements Update	21	\$5,000
Task 3	Cost of Service and Billing Data Analysis	64	\$13,000
Task 4	Rate Structure Analysis	49	\$8,000
Task 5	Documentation and Presentations	78	\$17,000
<b>Total Labor</b>		<b>232</b>	<b>\$47,000</b>
Estimated Expenses			\$0
<b>Total Not-To-Exceed Project Cost</b>			<b>\$47,000</b>

It has been our pleasure to assist the City in the development of the electric utility FAMS model and rates analysis. We are excited to help with the review of alternative rate structures to enhance the equity and financial sustainability of the electric utility.

Regards,



Benjamin Stewart, PE  
Registered Civil Engineer - Colorado  
Managing Consultant  
Phone: 720.418.1056  
benjamin.a.stewart@stantec.com

Attachment: None